

## **REMARKS**

This is a full and timely response to the outstanding final Office Action mailed April 23, 2007. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **1. Response to Objection of Drawings**

The drawings have been objected to under 37 CFR § 1.83(a) for allegedly not showing all the claimed method steps, such as simulating activities of the plurality of creatures at a first mode of simulation, simulating an activity of one of the plurality of creatures at the second mode of simulation. See Office Action, page 2. Applicants respectfully disagree.

For example, Figure 1 shows in block 100 a macroscopic simulation of a large number of animats. Accordingly, this may be referred to as a first mode of simulation. Block 120 of Figure 1 shows that detail simulation (as opposed to a macroscopic simulation) is performed for animals undergoing a change in environment. Accordingly, this may be referred to as a second mode of simulation. Therefore, the claimed features mentioned in the Office Action are disclosed in the figures. For at least these reasons, withdrawal of the objection to the drawings is requested.

### **2. Response to Rejection of Claims under 35 U.S.C. § 112**

Claims 1-11 have been rejected under 35 U.S.C. § 112, First Paragraph for allegedly containing subject matter which was not adequately described in the specification. In particular, the Office Action questions the addition of the language directed to a first mode of the simulation being less detailed and less computationally intensive than a second mode of the simulation. Applicants respectfully traverse the rejection.

For example, the paragraph starting on line 15 of page 7 of the specification states "by only invoking the more detailed Hi-Fi Sim when required, and otherwise the less computationally intensive Lo-Fi Sim to otherwise model the activities of the animates, it will be appreciated that efficient use is made of the available computational resources. This enables large populations of animats (or other creatures) to be modeled to a fairer

degree of accuracy on a relatively low power computer.” See also page 8, lines 1-13; page 9, lines 1-8. Also, the paragraph starting on line 26 of page 5 states that the “Lo-Fi Sim has programmatic access to a simulation capable of modeling a small number of animats in greater detail, using all relevant physical details in a high fidelity simulation (the Hi-Fi Sim, 120).”

From the above described passages, Applicants respectfully submit that the claim language of the present claims is adequately described in the specification and comply with the requirements of 35 U.S.C. § 112, First Paragraph. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 1-11 have also been rejected under 35 U.S.C. § 112, Second Paragraph for allegedly failing to point out and claim subject matter in the claims. The Office Action asserts that claims 1, 10, and 11 are unclear. In response, Applicants submit that the claims are clear and definite. For example, the specification describes that a Hi-Fi simulation may be used for an animat when a new change in environment is encountered. Pages 5-6, lines 31-6. During the Hi-Fi simulation, the speed of an animat is measured in the new environment or terrain and this speed is passed to the Lo-Fi simulation so that the Lo-Fi simulation can simulate animats at the same speed. Pages 5-7, lines 31-14. Accordingly, the claim 1 recitation “wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation” is clear and definite in view of the specification. Accordingly, Applicants submit that similar recitations in claims 1-11 comply with 35 U.S.C. § 112, Second Paragraph, and withdrawal of the rejection is respectfully requested.

The Office Action also suggested that claims 3 and 7-9 should use Markush group language. However, a Markush group is not being attempted to be claimed. Rather, parameters or changes are recited to comprise at least one of a plurality of items and is not limited to be one item from the recited list, as would be the case for a Markush group. Further, claims 3 and 7-9 have been amended to provide additional clarity and are believed to comply with 35 U.S.C. § 112, Second Paragraph. Accordingly, withdrawal of the rejection is respectfully requested.

The Office Action also rejects claim 6 for not having proper antecedent basis for "the method." However, claim 1 recites "A method" which is the basis for "the method" in claim 6. Therefore, withdrawal of the rejection of claim 6 is respectfully requested.

The Office Action also rejects claim 11 for being confusing and unclear. Applicants have amended claim 11 to provide more clarity to the claim terms. As such, claim 11 is believed to comply with 35 U.S.C. § 112, Second Paragraph, and thus, withdrawal of the rejection of claim 11 is respectfully requested.

3. Response to Rejection of Claims under 35 U.S.C. § 101

Claims 1-11 have been rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter and for failing to show a practical application, a physical transformation, or produce a tangible result.

In response, the claims as presented recite that the simulations are observable by a user. In support, the present application explains that simulated animats are studied, as an example. Therefore, simulation of creatures at a first mode and second mode of simulation observable by a user constitutes a practical application and produces a useful, concrete, and tangible result. Accordingly, withdrawal of the rejections is respectfully requested.

Further, the Office Action states that claim 11 is directed to a computer program/software and instructs that the claim should be directed to a "tangible computer-readable medium encoded with a computer program/software" to be statutory. However, claim 11 recites a "recordable medium having recorded thereon computer readable code" which is not directed to a computer program/software and is directed to a computer-readable medium type of claim which is statutory. For at least this additional reason, the withdrawal of claim 11 is requested.

4. Response to Rejection of Claims under 35 U.S.C. § 102(b)

Claims 1-11 have been rejected under 35 U.S.C. § 102(b) as being anticipated by *Barba* ("The Sims Livin' Large Expansion Pack – Prima's Official Strategy Guide" by Rick Barba). Applicants respectfully traverse this rejection.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

In the present case, not every feature of the claimed invention is represented in the *Barba* reference. Applicants discuss the *Barba* reference and Applicants' claims in the following.

Further, the Office Action failed to consider all of the features of the pending claims since it was believed some features did not comply with 35 U.S.C. § 112. However, as explained above, the pending claims comply with 35 U.S.C. § 112, and Applicants respectfully submit that the pending claims are patentable under 35 U.S.C. § 102 for the following reasons.

a. Claim 1

As provided in independent claim 1, Applicants claim:

A method of simulating the activities of a plurality of creatures, the method comprising:

simulating activities of the plurality of creatures at a first mode of simulation observable by a user, ***wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation***; and

***simulating an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment.***

(Emphasis added).

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that *Barba* does not disclose, teach, or suggest at least "simulating an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment," as recited and emphasized above in claim 1.

Rather, *Barda* discloses at most game playing hints and strategies for the Sims computer game. In this game guide, *Barda* fails to disclose that different simulation modes are used to simulate activities of one or more creatures. While *Barda* may describe that different activities are capable of being simulated, *Barda* is seemingly limited to representing these activities at the same mode of simulation. Accordingly, *Barda* fails to teach or suggest "simulating an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment" and "wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation," as recited in claim 1.

Therefore, claim 1 is not anticipated by *Barda*, and the rejection should be withdrawn for at least this reason alone.

b. Claims 2-9

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-9 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that the dependent claims 2-9 contain all the features of independent claim 1. For at least this reason, the rejection of claims 2-9 should be withdrawn.

Additionally and notwithstanding the foregoing reasons for allowability of claims 2-9, these claims recite further features and/or combinations of features (as is apparent by examination of the claims themselves) that are

patentably distinct from the cited art of record. Accordingly, the rejections to these claims should be withdrawn.

c. Claim 10

As provided in independent claim 10, Applicants claim:

A recordable medium having recorded thereon computer readable code, wherein the computer readable code is adapted to:

simulate activities of the plurality of creatures at a first mode of simulation observable by a user, ***wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation; and***

***simulate an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment.***

(Emphasis added).

Applicants respectfully submit that independent claim 10 is allowable for at least the reason that *Barba* does not disclose, teach, or suggest at least "simulate an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment," as recited and emphasized above in claim 10.

Rather, *Barda* discloses at most game playing hints and strategies for the Sims computer game. In this guide, *Barda* fails to disclose that different simulation modes are used to simulate activities of one or more creatures. While *Barda* may describe that different activities are capable of being simulated, *Barda* is seemingly limited to representing these activities at the same mode of simulation. Accordingly, *Barda* fails to teach or suggest to "simulate an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment"

and “wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation,” as recited in claim 10.

Therefore, claim 10 is not anticipated by *Barda*, and the rejection should be withdrawn for at least this reason alone.

d. Claim 11

As provided in independent claim 11, Applicants claim:

A simulator device arranged to simulate the activities of a plurality of creatures, the device being arranged to utilise at least two modes of simulation: a first mode arranged to:

simulate activities of the plurality of creatures at a first mode of simulation observable by a user, ***wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation; and***

***simulate an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment.***

(Emphasis added).

Applicants respectfully submit that independent claim 11 is allowable for at least the reason that *Barba* does not disclose, teach, or suggest at least “simulate an activity of one of the plurality of creatures at the second mode of simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment,” as recited and emphasized above in claim 11.

Rather, *Barda* discloses at most game playing hints and strategies for the Sims computer game. In this guide, *Barda* fails to disclose that different simulation modes are used to simulate activities of one or more creatures. While *Barda* may describe that different activities are capable of being simulated, *Barda* is seemingly limited to representing these activities at the same mode of simulation. Accordingly, *Barda* fails to teach or suggest to “simulate an activity of one of the plurality of creatures at the second mode of


simulation observable by the user, wherein results of the simulation at the second mode of simulation are used to provide a simulation of the plurality of creatures at the first mode of simulation for the new change in environment” and “wherein the first mode of simulation is less detailed and less computationally intensive than a second mode of simulation,” as recited in claim 11.

Therefore, claim 11 is not anticipated by *Barda*, and the rejection should be withdrawn for at least this reason alone.

### **CONCLUSION**

For at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

  
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